THE CRITERIA OF INSANITY AND THE PROBLEMS OF PSYCHIATRY.*

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The rapid spread in recent years of the desire to study the insane by modern scientific methods (as shown by the establishment of laboratories and the appointment of specially qualified assistants, usually pathologists, in the hospitals for the insane throughout the English-speaking countries especially) leads us to ask, At what kind of problems should we work? In what order should we attack them? and By what methods? It is obvious that the nature of the general subject-matter of a science will determine the kind of problems which it sets us. To take up these problems in their logical or evolutionary order is to economize our labors and thereby reach results in shorter time; for to work according to the laws of logic is to work in the lines of least resistance, like pulling directly with the current instead of at an angle to it. The *methods* of work will suggest and develop themselves when we have once clearly defined what the *problem* is. It is the purpose of this paper, therefore, to indicate the nature of the legitimate problems of psychiatry, and to show their natural order and their relations to each other and to the general medical sciences.

Although in the biological order *cause* precedes *effect*, and it would therefore seem more logical to study etiology before symptomatology, we must remember that it is the effect which comes first to our notice, and that we cannot study causes except in the light of effects. Therefore it is that the first problem is not what *causes* insanity, but what *is* insanity, and if we can clearly define this, we are in a better position to attack the problems of causation. In fact, our present ignorance of the causes

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of insanity is largely due to our ignorance of what insanity really is. The effort, then, to define insanity has not merely an academic or medico-legal interest, but is essential to a thorough scientific study of the subject. Our efforts may not meet with success, but that does not excuse us from trying. Each sincere effort brings us a little nearer the truth, until finally someone will state it in a form that will receive general recognition. It is agnosticism in the field, not of theology, but of science, which says it is no use trying, and scientific agnosticism has never yet added anything to the sum of human knowledge. If such agnostics have made contributions to the world's knowledge, and many of them have, it has been in spite of and inconsistently with their agnosticism, and not because of it.

In accordance with the above principles, in order to state what the problems of psychiatry are, it will first be necessary to define what insanity is, and on turning to the writers on insanity, we find almost as many different definitions as there are writers who try to define it, while many do not even attempt any definition at all. To state and criticise the definitions of even the principal writers would lengthen this paper far too much, and I shall therefore select such writers as represent the principal attitudes taken towards the problem, and make the necessary comments on these.

Krafft-Ebing states the position of the majority of psychiatrists today when he says that "Insanity is a brain-disease," since "it is a logical and self-evident consequence that the organ which under normal conditions subserves the purposes of psychical processes must be the seat of changes if these functions are disordered." The position, however, is logically untenable, and in practice has not led to the advances in our knowledge of insanity that was expected of it; it is not the brain anatomists and pathologists who have taught us most about insanity. On the one hand, individuals with cerebral hemorrhage, cerebral tumor, or hydrocephalus are not necessarily insane, and on the other hand there are many forms of insanity in which there are as yet no discovered brain lesions. Thus we may have brain disease without insanity and insanity without known brain disease, and in the latter case to assume brain disease from the existence of the insanity is to beg the question. But even granting, for the sake of argument, that the brain is diseased in every

case of insanity, it is not the brain disease that constitutes the insanity, though it may be the cause; the bruised finger does not constitute the pain, though it is the cause. Cause and effect, like all correlatives, are inseparably associated, but they are not identical. We may perhaps be justified in saying that insanity is *caused by* brain disease, but not that insanity *is* brain disease.

Furthermore, the so-called "logical and self-evident consequence" on which this conception of insanity is based is not conclusive, for any machine– a locomotive, for example,—may be perfect in its construction and equipment, yet be unable to perform its function (that of locomotion) if its wheels are blocked by an obstacle on the track; that is, it cannot perform its function, yet it has undergone no changes. Or, to take a physiological, not merely mechanical example, the muscles of the arm undergo no change when their function is disordered by a cerebral hemorrhage or a paralysis agitans. Change in the organ is not the only cause of impaired function. I deny, therefore, that it is a "logical and self-evident consequence" that the brain is diseased because a man has a delusion—it *may be*, but it yet remains to be proved that it *must* be. There is at least one form of insanity, paranoia, that seems to me to be a purely intellectual or ideational disease, in which I can as yet see no logical necessity for assuming either a structural or chemical alteration in the brain tissue on the one hand, nor can I conceive on the other how any structural or chemical alteration can produce the phenomena observed. I may be wrong and am willing to be convinced, but am unwilling to *assume* the necessity in advance of its *proof*. So widely current is this conception of insanity, nevertheless, that Wernicke says "The proposition that mental diseases are brain diseases will hardly be disputed by any specialist today."

Another attitude taken towards the solution of the problem is that insanity is a symptom or manifestation of disease or defect of the brain or body; as such it deserves some study, but the main element is the physical condition underlying it. It is defined then in terms of its etiology or of its own manifestations rather than of its essence. The definition answers the question, What does insanity do? or How does insanity manifest itself? instead of the question, What is insanity? Maudsley's definition, "Insanity is a morbid derangement, generally chronic, of

the supreme cortical centres—the grey matter of the cerebral convolution or the *intellectorium commune*—giving rise to perverted feeling, defective or erroneous ideation and discordant conduct, conjointly or separately, and more or less incapacitating the individual for his due social relations," is typical of this class and lays especial stress on the pathological anatomy. If we would solve the problems of insanity, we must know more than its attributes; we must know its essence.

A third point of view is that of Spitzka, who tried to define insanity in its essence, but was handicapped by the psychology of the day. This definition, which he subsequently regretted having attempted, reads, "Insanity is either the inability of the individual to correctly register and reproduce impressions (and conceptions based on these) in sufficient number and intensity to serve as guides to actions in harmony with the individual's age, circumstances and surroundings, and to limit himself to the registration as subjective realities of impressions transmitted by the peripheral organs of sensation, or the failure to properly coordinate such impressions and to thereon frame logical conclusions and actions, these inabilities and failures being in every instance considered as excluding the ordinary influences of sleep, trance, somnambulism; the common manifestations of the general neuroses, such as epilepsy, hysteria and chorea; of febrile delirium, coma, acute intoxications, intense mental preoccupation; and the ordinary immediate effects of nervous shock and injury." This definition is too long, involved and clumsy, and besides it should not be necessary, in a general definition, to exclude specifically so many factors. It will be noticed, however, that, long as it is, no hint is given of any brain disease, while stress is laid on the psychological or mental elements.

In spite of this diversity of conception, Krafft-Ebing, Maudsley, Spitzka, and their respective adherents, would undoubtedly agree as to the insanity of any given individual, if confronted with the case. Would they use the criteria, in making up their judgments, which they incorporated in their definitions? Would Krafft-Ebing or Maudsley, for example, declare the man insane if they could prove on physical examination that he had a cortical brain lesion? Not necessarily. Consciously or not, all alienists would use the same criteria in any specific case, other-

wise their final judgments would differ as widely as their definitions. What are, then, the real criteria of insanity?

It is a common saying that men are judged by their actions. There is truth in this, but not the whole truth, for consciously or unconsciously to the observer, other elements enter into every judgment of men in action. It is these other elements, as well as the acts themselves, that become the criteria of insanity. What are they? Let us take a simple case, such as A killed B.

I do not know of any single act of an insane person that might not have been under other circumstances a normal act, or the act of a normal individual. Homicide, suicide, self mutilation, even such disgusting acts as the eating of excrement, have all been done by normal sane persons. Since, then, no act, taken by itself alone, however bizarre, is pathognomonic of insanity, we must ask the question, Was the individual insane? To answer this question, is it sufficient to know of A that he had had cerebral hemorrhage, with slight paralysis of one arm, slight ptosis, flattening of one naso-labial fold, slight inequality of the pupils, etc.? Or that he had a dolichocephalic skull, Darwinian tubercles, asymmetrical features, a cleft palate, talipes varus, a rachitic chest, a consumptive mother, an alcoholic father and an epileptic sister? No, it is not these positive signs of brain lesion nor these so-called stigmata of degeneration, nor this hereditary taint which constitute insanity; most of us would show some of these or other similar signs or stigmata, yet we are not insane; and most of us know among our very sane acquaintances individuals who have many such stigmata. So of A; he might have all these signs, and yet have killed B in self-defense against an unprovoked assault. On the other hand, in the case of C killing D, the former may have had none of these, but have had a normal body and a normal brain, so far as any subsequent investigations could determine, and yet have killed an innocent man because he fancied the latter had been plotting against him. I have in mind such a man—an able, capable scholar, a good, all-around athlete, who made many desperate attempts on the lives of others, though fortunately he did not succeed.

What is the difference in the two cases? It is a difference in the *circumstances* under which the act was committed. In the one case, A killed B *in self-defense*—no question of insanity arises, or it is dropped as soon as this fact is known. In the

other case, C killed D, thinking the latter had been plotting against him; if this idea of C's is not according to the facts in the case, the question of insanity arises. If it can be shown, however, that the idea was in accordance with the facts, C might be fully justified in his act, and would not be thought insane. Aguinaldo was not thought insane when (as is alleged) he caused Luna to be killed on the ground that the latter was plotting against him. An analysis of these circumstances, then, shows that the *real conditions* or *environment* are one element in the determination of the judgment of insanity, and the individual's *understanding* or *conception* of that environment is another. The necessity of insisting on the importance of the real environment lies in the fact that man cannot exist in and by himself alone, but that all his activities, mental as well as physical, are in relation to his environment, and if we would understand his acts, we must know this environment, as well as his conception of it.

In general it may be said that the real environment consists of (1) the necessary conditions of all existence, without which nothing could exist or happen, namely, space, time, energy, and law or necessity; these are outside of and hence objective to the individual, and hence form a part of his environment; (2) the material objects such as land, buildings, persons, and other modes of energy; such as heat, light, etc., for these, too, exist independently of the individual and are objective to him; (3) the mechanical, spatial and temporal relations among these material objects and modes of energy, such as presence or absence, nearness or remoteness in time and place; these again are objective to the individual and exist whether he does or not; (4) the organic and social relations between such parts of the environment already mentioned as can by their nature have such relations; that is, an individual is part of a community, and being one of many he must have and have had dealings with others, who also have dealings with each other—these are outside of and therefore objective to the individual, and thus form a part of his environment; and (5) the relations of obligation and right as between individuals or any individual and the community; that is, as a member of a community (whether it be the numerically small one of family, partnership, business or social organization, or the larger one of town, state or country), whatever the com-

munity and whatever its size, the individual holds certain rights and privileges, and in turn owes certain duties and obligations; the community, in virtue of its constitution as a community, invests each of its constituent parts with these rights and privileges and demands from them certain obligations. Each individual is entitled to his life and liberty, and may defend himself if these rights are invaded; and each other is under obligation to respect those rights. Since man is the product and a member of the community, he cannot escape these rights and duties. They are objective to him, existing whether he thinks or knows of them or not, and hence form a part of his real environment.

These are the elements which make up the real environment of every individual, and I think that in any specific case the whole environment can be assigned to these different categories. If we would judge of the sanity or insanity of any individual, we must know what the environment was in some or all of these particulars during such time as his sanity is in question, though according to the case, stress will be laid on some elements more than on others, especially on the fourth and fifth elements, in most cases. Not all elements are of equal importance in each instance.

To illustrate with the case of C killing D because he thought the latter was plotting against him, it is not necessary to consider (1) the conditions of all existence and happening—they are taken for granted without question; nor is it necessary to know (2) in what building, whether by daylight or dark, the act occurred, nor whether other persons were present or not; we must, however, know (3) that C and D were actually present and that the act really occurred; and also (4) what the social relations had actually been between them, as to whether D had actually been plotting against C or not; and we must know (5) whether C acted in violation of his duties and obligations towards D, and whether the latter had by his own acts forfeited these rights to C.

The other element above mentioned as necessary to determine the question of sanity or insanity, besides the real environment, is the individual's *understanding* or *conception* of the environment in all its elements. Man is finite and has but a limited understanding of his environment at best, and so cannot know it completely. Wherein he fails to know it completely he is *ignorant*. He must know it *as it is* in so far as he knows it at all.

Wherein he conceives it to be different from what it really is he is either *in error* or *deluded.* In one sense *delusion* and *error* are interchangeable terms, but if we use them indiscriminately we cannot make clear the distinction between that misconception of the environment which may occur in the normal mind and that which arises abnormally. The word delusion is therefore reserved for the latter exclusively. In judging of the insanity of an individual, if we find that he understood his environment correctly in all its essential particulars, we cannot consider him insane, even though he may have done some act against reason, or custom or law. A man may do unreasonable or foolish things to entertain others or to attract attention; or through ignorance of the customs of the place he is in; or he may do criminal acts. But if these things are known no question of his insanity arises. If he misconceives his environment we must determine whether it was through ignorance or error or delusion.

Many influences may *normally* affect the correct understanding of the environment. Most men accept uncritically what is told them if there is any plausibility in it, and many even if there is not. It goes without saying that the more ignorant men are, the less critical and the more liable to error they are. Of external influences affecting the normal individual's comprehension of his environment, the most important are his race and parentage, his education, and his social surroundings, including the customs of those among whom he lives. Some of these may change greatly in the course of his life-time, and since man is a learning animal throughout his life, that is, has the faculty of progressively comprehending more and more of his surroundings, his conceptions may change with them. His conceptions of his rights and obligations especially and of his relations with others will be determined by these factors, which may be included under the general term of his *bringing-up.* I use this word as of larger meaning than education, which applies more especially to schooling and to such other training as one acquires in fixed organizations. The Anglo-Saxon has different conceptions of his family relations from the Turk. The man reared in the slums has a different conception of his rights and obligations from the man raised in affluence.

Of internal or individual influences arising within the individual himself, which normally affect his conception of his sur-

roundings, are his age—the child is ignorant; his development—the defective or imbecile is ignorant; his capacity to understand or educability—not all are capable of becoming Admirable Crichtons; his critical acumen—even uneducated persons may have much critical acumen, and weigh what is told them before accepting or rejecting it, the men of so-called horse-sense; and the emotions or affects. These latter influence powerfully the understanding of the environment, especially in its social and organic elements, and its ethical elements.

Emotions are internal or subjective reactions to ideas. They are aroused by the environment only through the understanding of the environment; if the latter is misunderstood, emotions at variance with it are aroused. The dog growls suspiciously at the distant man until he recognizes a friend. Once aroused they in turn influence the subsequent ideas and conceptions of the environment which the individual has. The thought subtly instilled into Othello's mind by Iago changed his feeling for Desdemona from confidence to distrust, and this blinded his perception of her true innocence. It is thus that prejudices arise which seriously affect the ability of the individual to see things as they really are, especially in the social and ethical fields. The person who is unconvinced by incontrovertible logic is either limited in his capacity to understand or is prejudiced, *i. e.*, his emotional or affective attitude so influences his thinking that he cannot see the true relations in the argument. The intensity of these emotions depends partly on race (the Latin races, for example, are more excitable than the Anglo-Saxon) and partly on the personal peculiarity of the individual—members of the same family, even, differ in the intensity of their emotions. Bodily conditions, also, give rise to affects, to emotional attitudes, which influence the conception of the environment. The dyspeptic is notoriously pessimistic, *i. e.*, sees things worse than they really are.

Many of these factors may conspire to cause error or misconception of the environment on the part of normal individuals. If they can be eliminated as causes of the misconception, and no other adequate rational ground for error can be found, we must come to the conclusion that the misconception is a delusion, that is a morbid idea.

An individual may have many delusions, yet carefully conceal them for a long time. He may finally give utterance to them in words or so act as to lead us to infer them. Even the utterance of them in words is in itself an act, and hence the individual's acts, using the word in this larger sense, assume a considerable importance in the judgment as to his sanity. Since everything we do is directed more or less consciously to the accomplishment of some end or purpose in relation to the environment as we conceive it, and since the act normally is proportioned to the end in view, besides knowing the environment and the conception of it, we must also know, in solving the question of the insanity of any individual in doing any specific act, (1) what his *motive* or *purpose* was, in order to determine if it was in proportion to the environment and to his understanding of it, and (2) whether the *act* was in proportion to the purpose and the environment. Obviously the individual's *purpose* will be very largely influenced and determined by his conception of his environment; but also by his habits of life and standards of action. For example, the man of criminal tastes or of low morals will have different motives under given circumstances from the man of high principle; the gambler in a western mining camp will kill a man for a more trivial offense than a man in an older and larger community would. An individual of great emotional lability is apt to form purposes disproportionate to the environment, as Sir Anthony Absolute constantly illustrates. The *act* may be disproportionate to the environment, though the purpose is proportionate, as when the general paralytic, seeing a cigar butt on the side-walk, jumped from a two-story window to pick it up. Such disproportionate acts are frequently seen on the vaudeville stage, where they constitute a large element of its humor.

Since any act or series of acts may be imitated, or any bizarre ideas may be assumed, or any act against custom, law or reason may be done through choice, we must know, in relation to the insanity of the individual, whether he so acted from choice, or was *unable* to think or act differently when previously he had been able. An inability to think or act in relation to the environment may occur normally during sleep, or, as Spitzka points out, during intense mental preoccupation; but except in these cases it is abnormal or morbid. It also occurs in unconscious-

ness from whatever cause or for whatever length of time, and is then also abnormal or morbid. But since unconsciousness is the absence of all mental activity whatever, it cannot be called either sanity or insanity, for these words imply mental activity of some kind. It is because the insane man is *unable* to correct his delusions or is unable to act differently that he is held to be not responsible for his acts, while the reckless or vicious man is held responsible on the ground that he is capable of understanding the truth and of acting on it.

Normally, then, an individual may fail to think, feel or act in harmony with his surroundings, through any of these various influences. In determining the insanity of any person, therefore, all these factors must be taken into consideration, and hence they become the real criteria of insanity. They may be briefly summed up, then, as:

(1) The real environment of the individual;

(2) His conception of that environment;

(3) His affective or emotional reaction to this conception, and the influence of this reaction upon his subsequent conceptions;

(4) The proportion between the purposes and acts on the one hand and the environment on the other;

(5) The individual's standards and habits of action as influenced by his bringing-up;

(6) The internal necessity or voluntary choice of his thinking, feeling and acting as he does.

Now, since insanity is a morbid and not a normal condition, and since on account of this condition the individual is unable to think rightly of his surroundings or to react affectively to them, or to act in harmony with them, we may define insanity as *a morbid condition of the mind which renders it impossible for the conscious individual to think, feel or act in relation to his environment in accordance with the standards of his bringing-up.* The definition will be found, I think, to exclude by its own terms all the specific conditions which Spitzka felt it necessary to mention in detail; it states the *essence* of insanity rather than its cause or basis, or its manifestations; and it conforms to all the criteria.

The element of duration is omitted from this definition. Those who are unwilling to consider acute alcoholism or the acute febrile epliria a sinsanity, even when they render it impossible for the

individual to think, feel or act in relation to his environment in accordance with the standards of his bringing-up, may make the definition read, "Insanity is a *more or less prolonged* morbid condition of the mind," etc. To my thinking, these are insanities as much as the psychoses of longer duration; the reason why we hesitate to class acute alcoholism under insanity is partly, I think, because of the stigma that the word "insanity" conveys, and partly because we associate irresponsibility for acts with insanity, but do not with acute alcoholism. The reason why the drunkard is held responsible for his acts is that, though he cannot control his acts while drunk, he can control his getting drunk, *i. e.*, the cause of his drunkenness, while the insane man, as ordinarily understood, cannot control either his acts or the cause of his insanity. These reasons, however, do not seem to me sufficient to exclude these conditions from the category of insanity.

The first great problem of psychiatry, that of the essence of insanity, having thus been indicated and its solution attempted, we must still defer the consideration of the cause until after we have taken up that of *form*, which includes symptomatology, course and outcome. The problems, then, that confront us, being determined by the criteria and the definition of insanity as thus set forth, are to find out the ways in which the insane person is unable to think, feel and act in relation to his environment; that is, they are those of observation and description of the thoughts, feelings and acts of the patients. For the purpose of study and subsequent comparison with other cases, these must be recorded in detail, together with the circumstances under which they occurred. This is the weakness, where it should be the strength of the records of a large (though, I am happy to say, a diminishing) number of our hospitals for the insane, where one would search in vain for anything that would give any adequate idea of the symptomatology of insanity. Yet where else should one look for it? If those who have the largest amount of material, the best opportunities for observation, and presumably the greatest interest in the subject, do not furnish such records, it cannot be expected that others less advantageously placed will do so.

What, then, should we observe and record? The conception of what insanity is, and the criteria as just set forth indicate the

lines of observation. Whatever other observations we may make of the patient, since insanity is a mental disease, and since all mental activity is in relation to the environment, we must at least observe (and to observe should be to record also, since the unrecorded observation is useless for purposes of scientific study) not only the environment of the individual, but his conception of it, his affective reaction to it, his purposes formed in relation to it, and his acts. Thus we record his delusions, as nearly as possible in his own words; it does not suffice to say that he has delusions of persecution or of grandeur—that is our judgment, not the fact on which the judgment is based. The only material for proper scientific study is facts. Neither is it sufficient to rest content with what the patient may spontaneously utter; we must question him in order to bring out what ideas he has regarding his environment in its various categories, as described in the earlier part of this paper; that is, as to whether he is oriented as to place, time, and persons, and as to his perceptions of his duties and obligations to others, etc. Here also would come observations and tests as to his powers of comprehension of new ideas or other elements in his environment; as to his memory, in respect both to his capacity to retain and his capacity to recall impressions; and as to the character of the ideas that are associated together in his mind.

We must observe, too, his affect and record not only his apparent feelings as indicated by his looks or attitude, but his own expression of his feelings. It will not infrequently be found, for example, that a patient who looks the picture of woe will invariably say that he is happy and content when asked the direct question; and on the other hand a patient who has certainly distressing delusions and says he is in despair or is suffering the torments of hell, will turn easily from these ideas to the consideration of passing trifles, thus showing the affect to be a very shallow one.

The activities of the patient must also be studied, not only in relation to the environment, but also in relation to his motives. Here again we must record not only how the act appears—as to being motivated or not—but must ask the patient what his motive was. We shall often be surprised at the discrepancy. His activities may be free or restrained, multiform or stereotyped and reiterated, apparently motivated or unmotivated, spontane-

ous or automatic, quick and facile, or slow and retarded, accurate and well adapted to the end in view or careless, crude and clumsy. In this connection we study his ability to do certain things which his previous habits and education have fitted him to do—such as to write, do sums either on paper or in his head, draw outline figures, etc.

It will not be necessary to pursue all these lines of investigation in every case, any more than it is necessary to exhaust all means of physical examination in every case of physical disease. But whatever lines of investigation are indicated should be carried out in some such way as this. Kræpelin, Sommer, Ferrari, and others have already devised some methods of studying these mental phenomena—other methods will be developed in accordance with the special problem to be solved by the individual investigator. Observations of this kind made throughout the patient's illness will give us in time a full and accurate symptomatology, and will indicate the course and outcome of the insanity.

These, then, are the problems of psychiatry par excellence, as they are the problems of no other science. But it has other problems also, namely, those of *cause*. It is only, however, after the problems of essence and form have been taken up that we come logically to this, or that we can work economically and fruitfully at it. We look, then, for causes (1) in the environment (heredity and conditions that cause anxiety, overwork or excesses) and (2) in the individual himself.

We have already learned that bodily conditions may alter normal mental processes or give rise to abnormal mental states. Prolonged intracerebral pressure, destruction or atrophy of cerebral tissues, poisoning by alcohol, morphine, cannabis indica, and other drugs, toxemias of the acute infections, advanced cardiac disease, etc., may have associated with them abnormal mental conditions, and it is natural to look for a causal relation between them. It is incumbent upon us, therefore, to examine the patient as to his physical condition by whatever instrument of precision, apparatus or method is indicated to determine the presence of lesions of the heart, lungs, digestive apparatus or nervous system. This is clinical work, but it is only a part of the clinical work, not the whole, as has been the tendency to regard it. The observation and study of the mental phenomena are also clinical work, and must constitute the most important

part of it until a full and adequate symptomatology has been achieved.

In our investigation of causes, the clinical laboratory becomes essential, with its facilities not only for the ordinary examinations of blood, urine, sputum, etc., but for such special researches as require work in organic chemistry, or need the use of electrical apparatus, the ergograph, reaction-time apparatus, and the other paraphernalia of a physiologico-psychological laboratory.

These investigations are of the living patient. To the pathological laboratory we owe what knowledge we have of the condition of the tissues and organs after death. In order that this knowledge may be of the greatest benefit to us, we must know what the conditions, both mental and physical, have been during life; and unless we can thus correlate our pathological findings with the ante-mortem conditions, we have lost about three-fourths of the value of our work.

These studies of etiology may be carried on simultaneously with those of symptomatology, but should never be undertaken to the exclusion of the latter. We still need to know far more than we do of the symptomatology of insanity, and we must bear in mind always that we can never solve problems of essence or form by working solely at problems of cause.

In conclusion, I would emphasize these points (1) Insanity is a *mental* disease as shown by the criteria actually used in the determination of its presence or absence in the individual case; (2) The scientific study of insanity consists primarily in the study of the mental phenomena, not physical conditions; and (3) The study of physical conditions as possible causes is necessary, but loses a large part of its value unless the mental phenomena have been well studied, and of itself alone can never give us an understanding of insanity.

The practical application of this paper lies in this: By modern scientific methods scientific work in the field which is peculiarly the domain of psychiatry can be done in hospitals not equipped with laboratories. The work so done will have the same value for subsequent laboratory work that the accurate and detailed symptomatology in general medicine had for modern pathology.